

CLIMATOLOGICAL DATA FOR APRIL, 1911.

DISTRICT No. 9, COLORADO VALLEY.

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GENERAL SUMMARY.

April was cooler and drier than the normal in nearly every part of the Colorado Basin. Slow-moving or stationary low-pressure areas controlled weather conditions during the first decade, and again during the third decade. These decades were similar as regards mild temperature and unsettled conditions, but the rainfall for the most part occurred in the first decade, the last being characterized by light scattering showers in the southern half of the district, and several days with moderate falls here and there in the northern half. The second decade was very different in character, weather conditions being under the control of a strong high-pressure area that advanced from the central Pacific coast. On the morning of the 11th the center of a barometric trough was east of the Continental Divide, with loops extending over the southern half of the district. By the following morning the trough had been transformed into a deep and well defined cyclonic area, central in southeastern Colorado, while increasing pressure was general in northwestern districts. Although the low center moved to eastern Iowa during the next 12 hours, loops of the depression still extended southwestward to Arizona. With the movement of the high pressure southeastward during the night of the 12th, sharp falls in temperature were general throughout the district, and hard freezing weather occurred, except in southern Arizona and southwestern New Mexico. The weather was somewhat milder in localities the following night, but temperatures were still below the freezing point. During the remainder of the decade high pressure persisted, and, as the skies remained clear, improvement in night temperatures was slow.

TEMPERATURE.

The mean of the 133 stations reporting was 52.5° , or 0.6° below the normal, and 2.1° cooler than the corresponding month last year. By subdivisions the means and departures were: Western Wyoming, 34.9° , -2.4° ; western Colorado, 41.7° , -0.2° ; eastern Utah, 48° , -0.6° ; western New Mexico, 52.9° , $+0.6^{\circ}$; Arizona, 60.2° , -1.0° ; and southeastern Nevada, 56.9° . The highest monthly mean was 72.5° at Mohawk Summit, Ariz., and the lowest, 21.4° , at Corona, Colo. In southwestern Arizona and southeastern Nevada fully half of the month was cooler than the normal, but in the remainder of Arizona days with mean temperatures above the normal predominated. In the central and northern parts of the district, where the number of days warmer and the number of days cooler than the normal was about the same, the cool days were much cooler than the normal, while the warm days gave only a slight excess. The extremes of temperature reported were: Western Wyoming, 70° at Green River on the 26th and -4° at Willow Creek Cabin on the 14th; western

Colorado, 90° at Delta on the 22d and -10° at Fraser on the 15th; eastern Utah, 85° at Moab and St. George, on the 22d and 24th, respectively, and -2 at Fruitland on the 13th; western New Mexico, 86° at Cambray on the 22d and 15° at Arragon on the 30th; Arizona, 100° at Gilabend on the 1st and 12° at Flagstaff No. 2 on the 14th; southeastern Nevada, 92° at Logan on the 23d and 24° at Caliente on the 13th.

PRECIPITATION.

The average precipitation for the 176 stations reporting was 0.69 inch, or 0.15 inch below the normal. By watersheds the means and departures were: Green, 0.73, -0.19 ; Grand, 1.43, -0.10 ; San Juan, 1.37, -0.37 ; Little Colorado, 0.45, -0.45 ; Gila, 0.28, -0.11 ; Mimbres, 0.39, $+0.06$; Colorado, proper, 0.10, -0.20 inch. The greatest amount was 5.23 inches at Corona, Colo., while none was reported from 3 stations in eastern Utah, 2 in western New Mexico, 10 in Arizona, and 1 in southeastern Nevada.

The greatest monthly snowfall in each subdivision was: Western Wyoming, 13 inches; western Colorado, 51 inches; eastern Utah, 4.7 inches; western New Mexico, 1 inch; and Arizona, 0.1 inch.

The average number of days with 0.01 inch or more of precipitation was 3, with the greatest number, 6, in western Wyoming and western Colorado.

RIVERS.

While the snow covering in the upper reaches of the Colorado is materially greater than a year ago, the prevailing low temperatures caused an appreciably smaller run-off during April than for the corresponding month last year. In the lower Colorado the volume discharged was somewhat below the normal. In the Grand and Green there was a slight rise during the first week, which was followed in the Grand by a steady fall until the 17th, when the minimum discharge of the month occurred; in the Green the minimum of the month prevailed from the 21st to the 24th. The Grand was first to show the effect of higher temperatures, and after the 17th began rising. In the Green the rise was very slow, in fact the volume discharged during the latter part of the month was not so great as during the early part.

MISCELLANEOUS.

The percentage of sunshine averaged very close to the normal. Grand Junction reported 80 per cent, Durango 74, Flagstaff 80, Phoenix 90, and Yuma 94 per cent of the possible.

The mean relative humidity reported ranged from 36 per cent at Phoenix to 50 per cent at Durango.

There were a number of high winds and sand storms, but the damage was not great.

TABLE 2.—*Daily precipitation for April, 1911. District No. 9—Continued.*

Stations.	River basins.	Day of month.																													Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Arizona—Continued.																																	
Pinal Ranch	Gila	.52	.05																														0.57
Pinto	Little Colorado	.20	.10		T.																											T. 0.40	
Prescott	Hassayampa					T.		.07	.10																						0.07		
Quartzsite	Colorado						T.																									0.00	
Redrock	Santa Cruz	.05		T.	T.		T.																								T. 0.05		
Roosevelt	Salt	.25																													.02	0.27	
Sacaton	Gila		T.																													T.	
St. Johns	Little Colorado	.08	.42																													0.90	
St. Michaels	do	T.	.10	.05																												0.74	
Salome	Colorado		T.																													0.08	
San Carlos	Gila		.35	T.																												0.35	
San Simon	do		.22																													0.22	
Selligman	Verde																																
Sentinel	Gila			.01																												0.12	
Showlow	Little Colorado																																
Silverbell	Santa Cruz																															0.00	
Snowflake	Little Colorado	.28	T.				T.		.13	T.																					T. 0.41		
Supai	Colorado																															0.00	
Tempe	Salt		.06	.02																											0.07		
Thatcher	Gila		.24																													0.26	
Tombstone	San Pedro	.21	.42																													T. 0.63	
Truxton	Colorado																															0.05	
Tuba	Little Colorado		T.	T.				T.																								0.27	
Tucson	Santa Cruz	.27	T.																													0.22	
Tucson (1)	do	.02																														0.02	
Tucson (2)	do		.12																													0.12	
Vail	do	.21																														0.21	
Walnut Grove	Hassayampa		.02																													0.27	
Wickenburg	do		.03																													0.03	
Willcox	Desert		.38																													0.38	
Williams	Colorado		.01	.12																												0.16	
Winslow	Little Colorado	.30	T.		.06																											0.36	
Yarnell	Hassayampa		.11																														
Yuma	Colorado		.02	.08																												0.11	
Yuma (1)	do																															0.10	
Nevada.																																0.00	
Callente	Colorado																																
Las Vegas	do																															T. 0.16	
Logan	do																																

* Precipitation included in that of the next measurement.

† Separate dates of falls not recorded.

II Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

